

DOCKET NO. SC11507ZC

REMARKS

In an Office Action mailed March 15, 2004, pending claims 1-27 were examined. Claims 15-27 were allowed, claims 3-14 were objected to and claims 1 and 2 were rejected. In response, Applicants are herein amending claims 1, 4, 8 and 9, canceling claims 2 and 3, adding a new independent claim 28 and respectfully request the reconsideration and allowance of claims 1 and 4-27. Applicants thank the Examiner for the efforts expended in reviewing this application.

The specification is herein amended to provide titles for the technical field and background sections. Additionally, a clerical error regarding an element number is corrected at page 9, line 1. Entrance of these clerical amendments related solely to matters of form is requested.

Claim 1 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (U.S. Patent 6,133,802) in view of Burn et al. (U.S. Patent 4,267,602). Ma was characterized as disclosing an injection-locked demodulator circuit (Fig. 1 and 2) and as acknowledged in paragraph 5 at page 3 of the Office Action, Ma does not disclose that AFC can be disabled. In fact, the Ma circuit is a carrier recovery circuit for a receiver and is not a demodulator. As discussed at Col. 4, line 65 to Col. 5, line 4, the Ma FIG. 2 injection locked oscillator functions to modulate the output of an inverter 500 in response to a received modulated signal to synchronize the output thereof with a received carrier frequency. A phase and frequency detector receives both the modulated input signal and the output of the modulating oscillator to compare frequency and phase of the two signals and thereby synchronize a receiver with a carrier signal. The oscillator circuit functions under control of a separate enable/disable signal.

Brun was characterized as disclosing a PLL synthesizer tuning system with AFC that can be disabled. However, Brun actually only discloses a control circuit that configures a reference

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oscillator to operate in an injection-locked mode under control of a crystal oscillator or in a voltage-controlled mode derived from AFC circuitry (not shown) wherein the reference oscillator frequency is controlled by the voltage applied to a tuning voltage control terminal (see Col. 1, lines 57-68). By asserting an AFC OFF control signal, the injection-locked mode is entered. Therefore, Brun only teaches disabling AFC control of a reference oscillator and does not teach a demodulator.

Claim 1 is herein amended to incorporate the limitations of objected to dependent claims 2 and 3. The combination of references does not teach a demodulator circuit or teach or suggest that "the AFC is disabled until a difference in first and second input signals reaches a threshold value" as recited in amended claim 1. Applicants request the withdrawal of the rejection of claim 1. Claim 4 is herein amended to provide proper dependency as a result of the cancellation of claims 2 and 3.

Claim 2 was rejected under 35 U.S.C. 103(a) as being unpatentable over Ma (U.S. Patent 6,133,802) in view of Brun et al. (U.S. Patent 4,267,602) and further in view of Delzer et al. (U.S. Patent 6,369,659). Delzer et al. teach a clock recovery system having an oscillator with a free-running frequency and a parallel PLL that adjusts the frequency as a function of phase of the received data and the oscillator clock. While the frequency of the oscillator varies as a function of the received data, there is no disabling signal or function taught by Delzer et al. Since claim 2 is herein canceled and the limitation added to independent claim 1, the rejection has become moot. However, this combination of references is readily distinguishable from any of the pending claims.

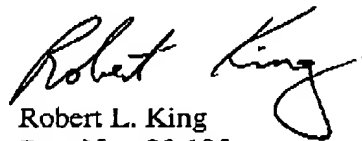
A new apparatus claim 28 is herein presented taking into account the prior art made of record. Among numerous differences, none of the references, taken alone or in reasonable combination, teach or suggest a demodulator circuit having a multiplier "having a first input for receiving the modulated signal and a second input for receiving a signal generated by the

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oscillator". None of the references teach "a tuning circuit coupled to an output of the multiplier, the tuning circuit selectively disabling the AFC in response to the output of the multiplier". Therefore, Applicants request the allowance of claim 28.

Applicants respectfully request consideration of the amendments and the allowance of claims 1 and 4-28, thereby placing the application in condition for allowance. Should issues remain that might be subject to resolution through a telephonic interview, the Examiner is requested to telephone the undersigned at (512) 996-6839.

Respectfully submitted,



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